

Check Out the Obvious

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Vol. 25 #3, December 1998

We all manage to miss the obvious from time-to-time. Careful use and monitoring of thermocouples is a prime example, and this has happened in many different extrusion operations. Remember to check for these obvious problems:

- A thermocouple that is not firmly bottomed in its well will read low, causing the zone it controls to run too hot. If this happens on one zone of a flat die, the results can be disastrous. Bottom all thermocouples on set up. If you encounter an otherwise unexplainable transverse gauge problem, recheck all of the die thermocouples for proper depth.
- Two thermocouples inadvertently crossed into each other's control zones will result in one overheated and one under heated zone. The hot signal will never allow the cold zone to turn on. Check to see that all thermocouple cables start and end where they are suppose to.
- Large and small masses of metal should never be combined into a single control zone. Example: A screen changer body, slow to reach set point, with a small adaptor that heats up easily. With the controlling thermocouple in the changer, the adaptor can go cherry red as the changer moves toward set point. With the thermocouple in the adaptor, the changer will never get to set point. Such items need to be on separate control zones.

- David R. Hopkins Conpiex. inc.

See also:

- Immersed thermocouples
- Temperature control
- Thermocouple depth

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